Chapter 3. Key TOD Considerations: Zoning, Density, Mixed-Usage, Buildings and Architecture

Pedestrian-Friendly Areas

{[1] "In pedestrian-friendly areas, land use activities are designed and arranged in a way that emphasizes travel on foot rather than driving by car. Creating an environment at pedestrian scale requires careful consideration of the dimensions of the human body and the proportions of the spaces that people use. The factors that encourage people to walk are often subtle, but they most regularly focus upon the creation of pleasant environments for the pedestrian.

Most people do not feel comfortable walking in a wide-open area with busy traffic passing closely by. Pedestrians are drawn to streets and paths with a feeling of intimacy and enclosure. This feeling can be created by locating buildings close to the sidewalk, by lining the street with trees, and by buffering the sidewalk with planting strips or parked cars. People on foot enjoy small details, such as displays in shop windows, street level lighting and signs, and public art and displays." [1]}

CalMatCo.

Plan for Rio Vista West TOD, San Diego

{[2] "Increasing the likelihood that people will walk to and within a station area significantly increases the probability that they will use public transit and improves the viability of the entire station community. A walkable environment is key to a successful TOD community. Just locating a mix of high-density development does not guarantee a good walking environment. Success in attracting people to walk rather than drive depends on the quality of the walkways, type of destinations, perceptions of safety, and number of obstacles or conflicts encountered along the way. If projects are to be more transit-oriented, they must be sensitive to the differing requirements of pedestrians, bicyclists and transit customers." [2]}

Develop a Shared Vision for the Project

"Address the future needs of the community and the transportation agency; and specify short- and longer-term goals, immediate action steps, and additional partners. Seek ways to solve problems, overcome obstacles, and innovate and identify a range of funding sources that may be available to the community or to the transportation agency."

Project for Public Places, Inc., "How Transportation and Community Partnerships are Shaping America, Part I: Transit Stops and Stations", 1999

Note: Because of the volume and length of many of the quotations in this document, a bracket symbol with corresponding footnote reference number is placed at the beginning and ending of each quotation.

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Transit-Friendly Zoning

TOD is part of a land use and transportation strategy that works best when enabled through clear and predictable development entitlements, transit-friendly zoning, and design standards. Legally defensible TOD zoning codes and design standards give planning departments a framework to shape development with building guidelines.

{[3] "Although transit-oriented development has been hailed for a number of years as an excellent alternative to conventional low-density development, it has still not been institutionalized within the permit and regulatory environment of most jurisdictions of the nation and region. According to a report published in the New Urban News, for every dollar invested in transit-supportive land use developments, over $1,400 is still invested in conventional suburban development. For this to change, local communities will have to take a hard look at how their zoning and development codes either frustrate or accommodate station area development activities.

Described below are three ways of creating a more effective regulatory and permit review environment for transit-oriented development:

- Modify zoning and development regulations to encourage, rather than discourage, transit-oriented development.
- Develop appropriate mechanisms to ensure that regulations are tailored to individual station areas.
- Simplify and streamline the permit review process." [3]}

Hayward Civic Center Place is the result of transit-friendly policies in the San Francisco Bay Area.

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Prohibited Uses

To help assure the return on the public's investment in major transit facilities, some communities have prohibited low intensity automobile-oriented uses in the areas near transit stations. For example, in Seattle:

"The following uses are prohibited within an underlying commercial zone as both principle and accessory uses, except as otherwise noted:

A. Drive-in businesses;
B. Dry storage of boats;
C. General manufacturing;
D. Heavy commercial services, except laundry facilities existing as of April 1, 2001;
E. Sales and rental of large boats;
F. Vessel repair (major or minor);
G. Mini-warehouse;
H. Principle use, nonresidential long-term parking;
I. Outdoor storage;
J. Sale of heating fuel;
K. Sales, services and rental of commercial equipment and construction materials;
L. Salvage and recycling;
M. Towing services;
N. Vehicle repair (major or minor);
O. Wholesale showroom; and
P. Warehouse."

Seattle Municipal Code,"Seattle Area Station Overlay District", Ordinance 120452, July 30, 2001

Modify Zoning and Development Regulations

{[4] "Many local zoning codes unwittingly discourage transit-oriented development through regulations designed to promote automobile-oriented, single-purpose, suburban-scale development. Identifying and eliminating these regulatory barriers is a necessary first step for creating successful transit station communities. This process is sometimes described as a regulatory audit." [4]}

New Zone Classifications

{[5] "The most common and basic way to implement new land use objectives is to create new zone classifications that can be used within a defined station area. This approach is useful if the land use objectives in other parts of the jurisdiction are much different, and minor modifications to existing classifications will not work. Emerging urban areas may need to use new classifications if they are to achieve some of the more dramatic changes needed at their station areas." [5]}

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> **"Transit agencies must get the word out to local planning departments and developers that they have an interest in site design and can offer valuable suggestions."**
>
> *Snohomish County Transportation Authority, "Participating in Community Planning: Ideas for Public Transit Agencies", October 1993*

Transit Overlay Zone

{[6] "If the current zoning only needs minor modifications, an 'overlay zone' might be appropriate. An overlay zone retains the existing zoning, but adds some supplemental provisions that apply only to the station area. In some cases an overlay zone is more restrictive, such as prohibiting auto-oriented uses, while in other cases it may be more flexible, such as allowing existing parking spaces as part of the new development requirement. The advantage of an overlay zone is that you can tailor regulations for a specific area without having to add an entirely new district to your zoning code." [6]}

New Zoning Districts

{[7] "Another approach is to create an entirely new zoning district with its own land uses and development standards. An advantage to an entirely new zoning district is that regulations can be specifically tailored to objectives and can be made clear and simple." [7]}

Minimum Density

{[8] "One zoning technique for achieving higher densities is to require minimum densities, but this approach can be tricky. If minimum densities are set too high, development is discouraged and locates elsewhere, often in areas poorly served by transit. If no minimum density standards are set, development occurs in areas at densities too low to support good transit service. To achieve workable minimum density standards, the following strategy is recommended: find the maximum density that the market can support and make that the minimum density." [8]}

Design Guidelines

{[9] "Another way to ensure that land use regulations are tailored to a community is to develop and use transit-oriented development design guidelines.

Design review can be an important regulatory tool for developing transit-oriented communities. Generally, design guidelines are used in conjunction with zoning requirements in directing new development to achieve public objectives. Whereas zoning codes can regulate quantifiable and easily determined characteristics such as use, height, bulk and setbacks, design guidelines are more successful in addressing other objectives such as building design, pedestrian orientation, building scale with respect to its surroundings and special site design issues. While zoning provisions usually rely on specific formulas or criteria, design guidelines can be much more flexible." [9]}

Parsons Brinckerhoff

Uptown Mixed Use

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> **"There is no magic number for an appropriate density target for all transit station communities."**
>
> *Puget Sound Regional Council, "Creating Transit Station Communities in the Central Puget Sound Region – A Transit-Oriented Development Workbook", June 1999*

Density

Establishing Density Targets

{[10] "Although density is only one variable influencing transit use, numerous studies have found that transit ridership increases significantly with increased land use density. There is no magic number for an appropriate density target for all transit station communities. Many different variables should influence any density targets that are established. For example, household densities can be lower if employment and commercial densities are high, and vice versa. Transit stations without associated parking would require higher densities than those with parking available; and rail stations with 5-10 minute headways would obviously support higher densities than those with 30 minute headways." [10]}

{[11] "Residential development near stations provides a ready market for transit trips. A variety of housing types, costs and ownership will establish diversity in a community and will lead to more transit trips throughout the day. More people will be around the [transit facility], supporting local commercial establishments. Research indicates that 15 housing units per gross acre will support a high level of bus service to a station area. High-density single family, townhouses, and apartments should be combined to achieve an adequate housing density. To maintain a good balance of activity, the number of jobs in the station area should not exceed the number of households by more than 3 to 1." [11]}

> **A Checklist for Planning a Mix of Land Uses:**
>
> - **"Are land uses complementary?**
> - **Are uses linked by sidewalks or paths?**
> - **Do uses create all day activity?**
> - **Are uses within walking distance?**
> - **Do buildings fit with each other?"**
>
> *Puget Sound Regional Council, "Creating Transit Station Communities in the Central Puget Sound Region – A Transit-Oriented Development Workbook", June 1999*

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Mixed-Uses

Establish a Compact Mix of Land Uses within a Defined Station Area

{[12] "A station area should generally include parcels within one-quarter mile to one-half mile walking distance of the transit facility. However, barriers such as busy streets or steep slopes can reduce this distance, while pleasant walking routes, such as an unrestricted pedestrian path, can increase the size of the pedestrian area. Each station area should be specifically defined based on local conditions, including the level of transit service provided, the likely purposes of the trips to be taken, and the pedestrian qualities in the immediate vicinity of the facility. Within a defined station area, the mix and density of land uses should be planned based on the location and access to the station. The highest density developments should, ideally, be located closest to the transit facility." [12]}

American Plaza is a 34-story building consisting of office space, a specialty retail galleria, a food court, and the San Diego Museum of Contemporary Art.

"To ensure that a mix of different land use activities is created within a station area, jurisdictions in other regions have established targets for mixed-use development. Below are some examples. Actual development may need to be monitored and zoning adjusted if targets are not met. Local targets should be based on specific station area land use goals.

- **Public uses, including park space and civic uses: 5 to 16% of total land use area**
- **Commercial retail space: 10 to 50% of total land use area**
- **Residential development: 20 to 80% of total land area**
- **Employment: 20 to 60% of total land area."**

Puget Sound Regional Council, "Creating Transit Station Communities in the Central Puget Sound Region - A Transit-Oriented Development Workbook", June 1999

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Building Height/Street Width

"Harmonious proportion has, at least since 1784, been a major objective of regulations of building height along Paris streets. The two (street width) to three (height to the cornice line) proportion of streets had existed traditionally and was then formalized."

Allan B Jacobs, "Great Streets", Massachusetts Institute of Technology, Boston, MA, 1999

A drugstore below offices across from the Oakland City Center Bart Station.

K Street Mall in Sacramento vertically mixes retail, office and residential uses.

Encourage Mixed-Uses within Buildings and on Adjacent Sites

{[13] "Mixed-use can occur when more than one land use is within a single building or when different uses are located in separate buildings close to each other. The important component is that good walking access must exist between the different land uses. Mixed-use within buildings (known as 'vertical mixed-use') is an excellent way to increase building density while integrating mutually supportive land uses. Residential above commercial will create all day activity and a functional place for pedestrians while increasing transit ridership. The same can be achieved with mixed-use in separate buildings (known as "horizontal mixed-use") if they are in close proximity and have adequate pedestrian connections." [13]}

{[14] "A certain minimum proportion of uses are required to stimulate pedestrian activity and to provide economic incentives for developing mixed-use patterns. The proportion of uses is based on site area and does not preclude additional, different uses on upper floors. A minimum amount of retail, housing and public uses are required in all TODs. The different mix of uses for neighborhood TODs and urban TODs is intended to reflect the variations in intensity and type of development desired at these sites." [14]}

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Buildings and Architecture

Urban Vitality

{[15] "Locating shops along the roadway attracts people to the area and helps create a dynamic, exciting environment in which pedestrians feel comfortable. Store windows add interest to the street and draw pedestrians along. Retail destinations close to the bus or trolley stop are an added incentive to use transit. Storeowners near active transit stops also benefit from sales to the casual, walk-in buyer." [15]}

Sacramento Convention Center

Varied Architectural Design and Detail

{[16] "Varied details on the exterior of buildings and in the public spaces adds interest for pedestrians, patrons and residents. These details assist in defining a TOD and establishing a separate identity from other parts of a community. The exterior treatments also help in relating the building(s) to the sidewalk and other public areas." [16]}

{[17] "A number of communities have developed provisions to reduce the effect of lengthy, unvaried, featureless facades or other structures lining the pedestrian route. A number of approaches can improve building interest, such as requiring street level display windows and other features of interest rather than blank walls along sidewalks and emphasizing building modulation (varying the setback of different sections of the building facade) to add variety." [17]}

Commercial Buildings

{[18] "The configuration of shops in a core area must seek a balance between pedestrian and auto comfort, visibility, and accessibility. While anchor stores may orient to the arterial and parking lots, smaller shops must orient to pedestrian "main" streets and plazas.

Villages of La Mesa Apartments in La Mesa

Primary ground floor commercial building entrances must orient to plazas, parks, or pedestrian oriented streets, not to interior blocks or parking lots. Secondary entries from the interior of a block will be allowed. Anchor retail buildings may have their entries from off-street parking lots; however, on-street entries are strongly encouraged.

Entries into small shops and offices should orient directly onto a pedestrian-oriented street. Buildings with multiple retail tenants should have numerous entries to the street; small single entry malls will be discouraged. Off-street parking should also be located at the rear of buildings with paths or sidewalks leading to the street and entry." [18]}

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Residential Buildings

{[19] "As with commercial uses, residential entries should face the street to encourage public activity in the public realm and to welcome visitors from the on-street guest parking.

In all cases, primary ground floor residential building entrances must orient to streets, not to interior blocks or parking lots. Secondary and upper floor entries from the interior of a block will be allowed.

In residential areas, the front door and guest entry must orient to the street. Private back-door entries can provide access from alleys, garages, and parking lots. Ancillary units and upper floor units in multi-family or apartment complexes may be accessed by rear entries." [19]}

Plaza in Hollywood-Highland

Plaza in Oakland City Center

Provide Usable Public Open Space

Integrated Parks and Open Spaces

{[20] "As density increases in centers and corridors, the need for usable public open space will also increase. Open space should be thoughtfully planned to avoid creating wasteful landscaped areas with little more than visual appeal. Instead, open space should be planned and designed for use by people, especially children and the elderly." [20]}

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References

1 Puget Sound Regional Council, *Creating Transit Station Communities in the Central Puget Sound Region – A Transit-Oriented Development Workbook*, June 1999.

2 Ibid.

3 Ibid.

4 Ibid.

5 Ibid.

6 Ibid.

7 Ibid.

8 Tri-County Metropolitan Transportation District of Oregon, *Planning and Design for Transit Handbook*, January 1996.

9 Puget Sound Regional Council.

10 Ibid.

11 Ibid.

12 Ibid.

13 Ibid.

14 Calthorpe Associates in association with Mintier Associates, *Transit-Oriented Development Design Guidelines for Sacramento County*, September 1990.

15 Corbett, Judy and Zycofsky, Paul, *Building Livable Communities: A Policy-Maker's Guide to Transit-Oriented Development*, The Center for Livable Communities, Sacramento, CA, August 1996.

16 Snohomish County Tomorrow, *Transit-Oriented Development Guidelines*, July 1999.

17 Municipal Research and Services Center of Washington for King County Department of Metropolitan Services & Washington State Department of Transportation Office of Urban Mobility, *Creating Transit Supportive Regulations: A Compendium of Codes, Standards and Guidelines*, August 1995.

18 Calthorpe Associates in association with Mintier Associates.

19 Ibid.

20 Tri-County Metropolitan Transportation District of Oregon.